

Mammoth Creek
Forest Stewardship Plan



Appendix K - Forestry Definitions

ABIOTIC- pertaining to the non-living parts of the ecosystem, such as soil particles, bedrock, air, and water

ADAPTATION- 1. The process of permanent, evolutionary (genetic) adjustments in structure, form, or function that fit individual, populations, or species to their environment
2. The processes whereby individuals (or parts of individuals), populations, or species change to better survive under given environmental conditions
3. The changed structure or function itself

*AESTHETIC- a subjective measure of value of visual quality; areas which are pleasing to the eye

ALLUVIUM- all sediment deposits resulting directly or indirectly from sediment transport within streams deposited in river beds, floodplains, lakes, fans, and estuaries

BASAL AREA- the cross-sectional area of all stems of a species or all stems in a stand measured at breast height and expressed per unit of land area

BIODIVERSITY- an index of richness in a community, ecosystem, or landscape and the relative abundance of these species -*note 1*. There are commonly five levels of biodiversity: (a) genetic diversity, referring to the genetic variation within a species; (b) species diversity, referring to the variety of species in an area; (c) community or ecosystem diversity, referring to the variety of communities or ecosystems in an area; (d) landscape diversity, referring to the variety of ecosystems across a landscape; and (e) regional diversity, referring to the variety of species, communities, ecosystems, or landscapes within a specific geographic region -*note 2*. each level of biodiversity has three components: (a) compositional diversity or the number of parts or elements within a system, indicated by such measures as the number of species, genes, communities, or ecosystems; (b) structural diversity or the variety or patterns or organizations within a system, such as habitat structure, population structure, or species morphology; and (c) functional diversity or the number of ecological processes within a system, such as disturbance regimes, roles played by species within a community, and nutrient cycling within a forest

BIOMASS- the living or dead weight of organic matter in a tree, stand, or forest in units such as living or dead weight, wet or dry weight, ash-free weight, etc.

BIOTIC- pertaining to living organisms and their ecosystems and physiological relations

BROOD- individuals that hatch at about the same time and normally mature at about the same time

CALCAREOUS (soil)-soil containing sufficient free CaCO_3 and other carbonates to effervesce visibly or audibly when treated with cold 0.1M HCl

CANOPY- the foliar covering a forest stand consisting of one or several layers

CLIMAX- the culminating stage of plant succession for a given environment; the vegetation conceived as having reached a highly stable condition

CLONE- a vegetatively propagated organism consisting of an ortet and its ramets

COLLUVIUM- pertaining to material or processes associated with transportation or deposition by mass movement (direct gravitational action) and local, unconcentrated runoff on side slopes or at the base of slopes

*COMMODITY- a forest output that can be measured with a dollar value, i.e. timber value

COMMUNITY- an assemblage of plants and animals living together and occupying a given area

COMPOSITION- 1. the constituent elements of an entity, e.g. the species that constitute a plant community 2. (silviculture) the proportion of each tree species in a stand expressed as a percentage of the total number, basal area, or volume of all tree species in the stand

COPPICE METHODS- achieve the majority of regeneration from stump sprouts or root suckers

CORRIDORS- management of a linear strip of land identified for the present or future location of transportation or utility rights-of-way within its boundaries

COVER- anything that provides protection for aquatic or terrestrial animals from predators, ameliorates adverse weather conditions, or provides shelter for reproduction

CURRENT ANNUAL INCREMENT (CAI)- the growth observed in a tree or stand in a specific one-year period

DEFOLIATORS- any organism, but more particularly insects, that can cause leaves to drop

DIAMETER at breast height (DBH, dbh)- the diameter of the stem of a tree measured at breast height (4.5 feet or 1.37 m) from the ground

DISTURBANCE- any relatively discrete event in time that disrupts ecosystem, community, or population structure and changes resources, substrate availability or the physical environment

DOMINANT- 1. (ecology) that component of a community, typically a species, exerting the greatest influence on its character because of its life form or great abundance 2. (ecology, silviculture) an individual species of the upper layer of the canopy

DRAINAGE (landscape)- an area (basin) mostly bounded by ridges or other topographic features, encompassing part, most, or all of a watershed and enclosing over 5,000 acres

DWARF MISTLETOE- a parasitic flowering plant of the genus *Arceuthobium*; these plants develop extensive absorption systems in the host's xylem tissue and derive most of their water and nourishment from the host; the endophytic system causes the formation of witches' brooms in some species; injury is caused by diversion of nutrients, growth

reduction, and mortality. It is also the most important disease problem in western coniferous forests

ECOSYSTEM- a spatially explicit, relatively homogeneous unit of the earth that includes all interacting organisms and components of the abiotic environment within its boundaries

ENDEMIC- 1. a disease constantly infecting a few plants throughout an area 2. a population of potentially injurious plants, animals, or viruses that are at low levels

EPIDEMIC- pertaining to population of plants, animals, and viruses that build up, often rapidly, to unusually and generally injuriously high levels

EVEN-AGED STAND- a stand of trees composed of a singled aged class in which the range of tree ages is usually about 20% of rotation

FORAGE- browse and herbage that is available either naturally or produced seasonally or annually

FORB- any broad-leaved herbaceous plant other than those in the Poaceae (Gramineae), Cyperaceae, and Juncaceae families

FUEL LOADING- the oven-dry weight of fuel per unit area -*note* load is often described by size or timelag class, and as live or dead, herbaceous or woody

GROUP SELECTION- trees are removed and new age classes are established in small groups

HABITAT- the place, natural or otherwise, (including climate, food, cover, and water) where an animal, plant, or population naturally or normally lives and develops

LANDSCAPE- a spacial mosaic of several ecosystems, landforms, and plant communities across a defined area irrespective of ownership or other artificial boundaries and repeated in similar form throughout

MEAN ANNUAL INCREMENT (MAI)- the total increment of a tree or stand (standing crop plus thinnings) up to a given age divided by that age

*NON-COMMODITY- intrinsic values or those which cannot be measured monetarily i.e. aesthetic quality, clean water, recreational opportunity

OVERSTORY- that portion of the trees, in a forest of more than one story, forming the upper or uppermost canopy layer, e.g., in a two-storied forest, seed bearers over regeneration, or standards over coppice

PERMEABILITY-the ease with which gases, liquids, or plant roots penetrate or pass through a bulk mass of soul or a layer of soil

POPULATION- a group of similar individuals sharing a common gene pool, delimited in range by environmental or endogenous factors, and considered a unit

PRESCRIPTION (silviculture)- a planned series of treatments designed to change current stand structure to one that meets management goals

PREVENTION (*vegetation management*)- the prescriptions or strategies used to ameliorate conditions that cause or favor the presence of competing, unwanted, or noxious vegetation

RANGE- 1. (ecology) the area in which a plant naturally lives and reproduces 2. (ecology) the known geographical distribution of a plant or animal during a defined time 3. (range management) any land supporting vegetation suitable for grazing, including range land, grazable woodland, and shrubland

REGENERATION (silviculture)- the act of renewing tree cover by establishing young trees naturally or artificially

RESIDUAL STAND- a stand composed of trees remaining after any type of intermediate harvest

RESIDUUM- unconsolidated, weathered, or partly weathered mineral material that accumulates by disintegration of bedrock in place

RIPARIAN- related to, living, or located in conjunction with a wetland, on the bank of a river or stream but also at the edge of a lake or tidewater

SALVAGE (cutting)- the removal of dead trees or trees damaged or dying because of injurious agents other than competition, to recover economic value that would otherwise be lost

SANITATION (cutting)- the removal of trees to improve stand health by stopping or reducing the actual or anticipated spread of insects and disease

SEDIMENTATION-the process of sediment deposition, usually resulting from erosion

SERIAL (stage)- a temporal and intermediate stage in the process of succession

SHELTERWOOD- the cutting of most trees, leaving those needed to produce sufficient shade to produce a new age class in moderated micro-environment

SILVICULTURE- the art and science of controlling the establishment, growth, composition, , health and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis

SKIDDER- a self-propelled machine, often articulated (hinged) in the center, for dragging trees or logs

STAND (silviculture)- a contiguous group of trees sufficiently uniform in age-class distribution, composition, and structure, and growing on a site of sufficiently uniform quality, to be a distinguishable unit

STREAM SIDE MANAGEMENT ZONE (SMZ)- a strip of land adjacent to a stream or river and managed in a way that meets water quality and productivity goals

SUCCESSION- the gradual supplanting of plants by another *-note* the sequence of communities is called a sere, or seral stage

SUSTAINABILITY- the capacity of forests, ranging from stands to ecoregions, to maintain their health, productivity, diversity, and overall integrity, in the long run, in the context of human activity and use

THINNING- a cultural treatment made to reduce stand density of trees primarily to improve growth, enhance forest health, or recover potential mortality; types of thinning include the following: chemical, crown, free, low, mechanical, and selection thinning

TOLERANT- a plant capable of becoming established and growing beneath overtopping vegetation

*TREATMENT- some kind of work or activity done on a stand or forest; i.e. cutting, thinning, herbicide application, etc.

UNDERSTORY- all forest vegetation growing under an overstory

UNEVEN-AGED- a stand with trees of three or more distinct age classes, either intimately mixed or in small groups

URBAN-WILDLAND INTERFACE- a forest or shrubland, commonly in the foothills of rural areas, where structures and other human development meet or intermingle with undeveloped wildland vegetation *-note* the junction may be well-defined or diffuse

*VIGOR- a tree or stand which is rapidly growing and usually very healthy

WATER BAR- a shallow channel or raised barrier of soil or other material laid diagonally across the surface of a road or skid trail to lead water off the road and prevent soil erosion

WATERSHED- a region or land area drained by a single stream, river, or drainage network

Source: The Dictionary of Forestry. The Society of American Foresters.; John A. Helms, editor
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* definitions derived from the Author